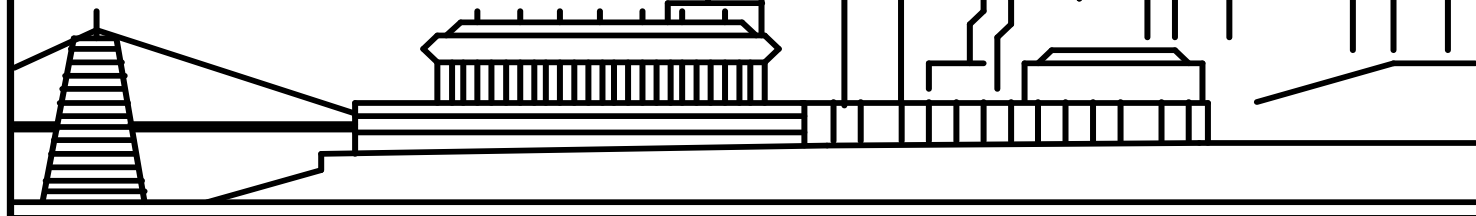




INSTITUTE OF
ELECTRICAL &
ELECTRONICS
ENGINEERS, INC.



FEBRUARY 2000

IEEE CINCINNATI SECTION NEWSLETTER

*As a prelude to a celebration of
ENGINEERS WEEK,*

ENGINEERS AND SCIENTISTS SERVING GREATER CINCINNATI
invites you to attend the
65TH ANNUAL RECOGNITION and AWARDS PROGRAM
to be held on Thursday February 24, 2000 at

**Receptions
1379 Donaldson Road.
Erlanger, Kentucky**

Time: 6:00 P.M. - Social Hour (Cash Bar)
7:00 P.M. - Dinner
8:00 P.M. - Speaker (Dr. Leon Boothe)
8:30 P.M. - Presentation of Awards

Cost: \$30.00

This dinner is a joint meeting with the American Society of Civil Engineers (ASCE), the Ohio Society of Professional Engineers, and the Northern Kentucky Chapter of the Kentucky Society of Professional Engineers (NKSPE). In addition, many other technical and professional societies will be represented by those in attendance. Come and share experiences with other professionals, make new friends, enjoy good food and meet this year's award recipients.

This year's award winners are as follows:

Distinguished Engineer (a.k.a. Herman Schneider Award): Carl F. Evert, Jr., PE, Ph.D. (nominated by the Retired Engineers and Scientists of Cincinnati)

Distinguished Scientist: Bobby L. Barnett, Ph.D. (nominated by the Cincinnati Chapter of the American Chemical Society)

Young Engineer of the Year: Bret Edward Norton, PE (nominated by the Ohio SW District of the American Water Works Association)

Professional Accomplishment in Consulting: George J. Thelen, PE (nominated by the No. KY Chapter of Kentucky Society of Professional Engineers)

RESC Lifetime Achievement Award: Phillip D. Spiess (nominated by the Retired Engineers and Scientists of Cincinnati)

Additional Information:

Meal: The meal features a choice of entree of either whitefish, chicken or a vegetarian dish. Gratuities are included in the meal price.

Reservations: Reservations may be made by calling Diana Hahn at (513) 287-2680. It is important when making your reservations to indicate your choice of entree. Because we are offering a selection of entree, it will be difficult to accommodate a large number of walk-ins the night of the dinner. Please cooperate and call in your reservations. You may also e-mail your reservation and choice on entree to her at dhahn@cinergy.com

Payment: Checks should be made payable to "ESC". Reservations must be made by Noon, February 17, 2000. We request that reservations be confirmed by prepayment of dinners before February 18, 2000. Mail your payment to:

Cinergy Corporation
P.O. Box 960, Room 505 Annex
Cincinnati, Ohio 45201
Attention: Diana Hahn

Speaker: The speaker for the evening will be Dr. Leon Boothe. His presentation will be about the National Underground Railroad Freedom Center.

Questions: If you have questions or need additional information, feel free to contact Diana at the phone number listed above.

CHAIR'S MESSAGE

by Ron Harbaugh, Section Chair

Our thanks to Don Sivitz and Larry Van Tuyl from Full Service Networking for their presentation of the features and functions of Windows 2000 Professional, Windows 2000 Server, and Windows 2000 Advanced Server at the Hartwell Recreation Center on January 20, 2000. Everyone enjoyed the program.

Full Service Networking specializes in the design, installation and support of computer networks. Take a look at their Web Page. The page address is www.FullService.Net.

Our Executive Committee is busy developing plans for upcoming Section meetings. We are planning a talk on Doppler radar in March, Pace in April and a talk on computer software in May. If any one has a suggestion for a technical meeting or, better yet, know of a speaker with a presentation available, please let me know. My numbers and email address are at the end of this newsletter. The only ground rule is that the subject matter must conform to IEEE disciplines. Meaning the topic must be germane to electrical or electronics or relate to your vocation as an engineer. Confusing enough. Contact me anyway.

We are discussing a variety of arrangements with a representative from Kings Island for the proposed IEEE spring family outing. We have a tentative date of June 3, 2000. Check your newsletters for information on each meeting.

Have a good day and see you next month.

UPCOMING SECTION MEETINGS AND TOPICS

March 23, 2000 - Section Meeting; Topic will be "Doppler Radar "

April, 2000 - Section Meeting; Topic will be "PACE "

May, 2000 - Section Meeting; Topic will be " Appliance Applications – LINUX ".

Detailed information about the Section Meetings will be included in that month's newsletter. If you are interested in attending an Executive Committee Meeting, please contact either Ron Harbaugh or Jack Beckmeyer (see last page for phone numbers).

NEW MEMBERS

The following individuals are IEEE members who are new to our Section:

KIM R. BLACK	OWEN V. KENNEDY
STEPHAN J. BOTOS	GARY S. KING
JEFF BRANDT	JEFFREY M. MALEC
DOUGLAS D. BRENNEKE	ANDERS S. MATTSSON
CHRISTOPHER J. BUELTER	DANIEL J. PEARSON
PATRICIA J. CARTER	THAO O. PHAM
HSIANG LI CHIANG	TIMOTHY A. PLEAK
ROBERT A. CLEMENS	MARK E. REVERMAN
THUY P. DANG	JAMES T. ROY
RONALD W. DIERSING	MATTHEW E. SLESSMAN
JEFFREY T. DROEGE	FOSTER B. STULEN
RONALD C. HART	SHU WANG
ROBERT K. INNES	CHRIS G. YOUNG
JESSICA L. JONES	QING-AN ZENG
DEBASHISH KAR	

We wish to extend our welcome to all of our Section's new members!!!

CINCINNATI SECTION ELECTION RESULTS

In the election held in December, 1999, Mark Strong was re-elected Member-At-Large for a term which will expire the end of 2001. In addition, Jim Everly, who had been serving both as Section Vice Chairman and PACE Chairman since Bill Lohner stepped down as PACE Chairman, has stepped down from his Vice Chairman position. This will allow Jim to devote more of his time to PACE activities. In order to fill out Jim's term as Vice Chairman, Tom Grou was appointed by the Executive Committee to replace Jim as Vice Chairman. Tom's term will expire at the end of this year.

Congratulations to all.

IN SEARCH OF DIAMONDS

by Jim Watson, PE

Region 2 SPAC Coordinator

Wouldn't it be great if section and student branch meetings averaged 50 to 100 attendees, if several people volunteered for each leadership position, if we had sufficient funds to provide outstanding programs, if university administration understood the value of student branch activities in accomplishing outcomes for ABET 2000 Criteria, and if all students realized that IEEE offers the greatest opportunity to continue their technical education and form successful personal networks by retaining active membership after graduation?

If you are interested in section and student branch growth, you are not alone. The number 1 recommended action item at the 1999 Sections Congress was membership retention and a successful GOLD Program for recent graduates.

So, how can this be accomplished? It must start with a successful partnership between sections and student branches. This idea was initiated at the 1993 Sections Congress where Jim Phillips and I conducted a workshop entitled "In Search of Diamonds." The theme of this workshop was membership retention through joint activities between section members and students and the development of a database of recent graduates.

At the March 6, 1999 Region 2 meeting, I introduced the Diamond Program and offered to discuss how existing programs can be used to build a stronger partnership between students and section/chapter/society members. This program includes a database of recent graduates (GRAND SPAVe) and the use of the GOLD Program to encourage them to retain their membership and continue an active role in IEEE.

I am pleased that the Baltimore, Columbus, Cincinnati, Susquehanna, and Philadelphia Sections provided the opportunity for me to give this presentation at one of their meetings in 1999. In addition, Northern Virginia, Pittsburgh, and Washington DC have scheduled this program early in 2000. This is a good start, and I encourage other section program chairpersons to consider this as a program this spring if you have a student branch in your area.

In addition to building a strong partnership between section and student branch members, the Diamond Program will also strengthen the university support of the student branch, encourage strong support by student branch advisors, help to build student membership and increase the ability of student branches to provide outstanding programs. As branches build graduate databases, they will have better resources for future programs. Their student membership will grow and programs will improve.

Student Career Development Activities (SCDA) offered by the SPAC Committee includes student ventures (SPAVes) and conferences (SPACs). These activities focus on career issues and offer outstanding opportunities for students to develop skills in leadership, organization, communication, and teamwork.

Because these programs prepare students for more successful careers and demonstrate the value of a life-long active membership in IEEE, I strongly recommend that student branch leaders implement SCDA programs and that sections support these activities to build strong partnerships with students.

Our back yard is a "Field of Diamonds." By working together, we can accomplish the wish list in my first paragraph. As Region 2 Coordinator for SPAC programs, I am dedicated to making a significant difference in our results. I am also pleased that four outstanding SPAC Support Coordinators (Bob Bassett, Janet Hill, Ed Miller, John Paserba, and Bill Schultz) join me in this endeavor.

Our SPAC team is ready to work with you and provide resources to help you succeed. The next step is up to you - student branch and section leaders. As Will Rogers once said, "Even if you are on the right track, you will get run over if you just sit there."

Jim Watson, PE
j.watson@ieee.org

The Man Who Invented the Web – Part 1

by Dick Reiman, Historian

Tim Berners-Lee, 41, creator of the World Wide Web, wasn't good at connections such as names and faces, and in 1980, wrote some software as a memory substitute. His method of finding things has grown into the World Wide Web which some place as important as the invention of the printing press. Such an important development has not brought him wealth and fame; some of this has gone to Marc Andreessen, co-founder of Netscape who has been on the cover of magazines. Berners-Lee drives an old Volkswagen Rabbit, not a Mercedes-Benz like Marc. His non-profit group, World Wide Web Consortium at MIT, which helps set technical standards for the Web is a modest organization.

His energy level is like Robin Williams'; he is British and an Oxford physics major. His relentless enthusiasm has guided the Web to success. He is not altogether happy on the nature of the Web, in fact gives it a B-plus as a force for good. Why isn't he rich? Answer: Tim's not after money.

His parents are part of his success. They helped design the Ferranti Mark 1, the world's first commercially computer. Growing up, he read Arthur C. Clarke's science fiction story "Dial F for Frankenstein" which contemplated crossing the threshold of enough computer power to be an autonomous thinking machine, ala Hal in 2001, also a Clarke creation. Is the World Wide Web (WWW) a thinking machine, a global brain? No and yes. Will it transform society? For the better? Stay tuned.

Burners-Lee is dedicated to making the emerging properties of WWW both benign and with a minimal degree of order. As director of the Web, he brings together its members, Microsoft, Netscape, Sun, Apple, IBM, and 155 others, and tries to obtain consensus on technical standards in the evolving software market. Can the Web stay as one and only, or will it break down so that you will need 16 browsers to find things?

The test is to keep widely respected standard HTML 3.2 which eases travel on the Web universal. Proposed also is PICS, Platform for Internet Content Selection, to let parents filter out offending Websites. None have the effect of law, and compliance is voluntary.

The right time was 1980, and the right place was CERN, a European physics laboratory on the Swiss-French border, for Berners-Lee to create his personal memory substitute for finding information at CERN. He called it "Enquire". It allowed him to fill a document with words, which would lead him to another document for answers. This idea had earlier been proposed by Vannevar Bush in 1945 and is called "hypertext", an interlocking of documents performed by a single click.

In the late 1980's, documents could be deleted including the "dangling links", the signposts or arrows that kept tracks of the links to the next document. If these dangling links could be retained even though the document was deleted, the systems could be made worldwide. Messy, but essential. Berners-Lee wrote a proposal to link CERN's resources by hypertext, whether they be text, graphic, video, anything, a "hypermedia system", and eventually a system that could go global. Berners-Lee persisted at CERN and a NeXT computer at his desk became the first Web content "server".

Intertech 2000 Conference in June

The Sixth Interamerican Conference on Engineering and Technology Education (INTERTECH 2000) will be held in Cincinnati, Ohio USA from June 14–June 16, 2000. The conference will be hosted by the University of Cincinnati. The Theme of the conference: "Engineering Education in the Americas and the New Millennium".

INTERTECH offers a unique opportunity for the discussion of issues related to the needs and interests of Engineering and Technology Education in the Americas as well as the development of links with colleagues from the Americas and around the world.. It also provides, in many diverse technical and plenary sessions, a major forum for the exchange of information on research and development in all fields of Engineering.

The conference generates countless opportunities for technological and educational interchanges, fostering the implementation of projects related to student and faculty exchanges, joint research and technological training throughout the Americas.

INTERTECH 2000 will mark the 10th anniversary in the evolution of this organization.

For more information including registration forms, please visit the conference web site at:

<http://intertech2000.uc.edu/>

THE MORE YOU KNOW....

UNLOCK MANAGEMENT SECRETS WITH MBA POWERPAK™ SIGN UP BEFORE FEBRUARY 21 AND SAVE \$900

Following the success of the 1999 sessions, the IEEE and Global Resources, a global management training and consulting firm, will continue to offer MBA PowerPak™ to IEEE members at a special 10% discount. In addition if you sign up now -- for any session held this year -- you will be charged at the 1999 price, a savings of \$900 over the 2000 pricing which goes into effect as of February 21.

Participants who attend the eight-day, two-part program are eligible to receive 6.3 IEEE Continuing Education Units (CEUs).

MBA PowerPak™ is designed for technical/scientific managers who are working across and between business functions and organizations; middle and high-performance junior level managers who are interfacing with all management levels; and managers who want to expand their business knowledge and are seeking a useful toolkit of skills and resources. The program offers instruction in the most critical MBA disciplines, including Business Strategy and Planning, Marketing in a Global Economy, Mastering Financial Analysis, and Managing in the New Millennium.

MBA PowerPak™ will be offered 8 times in 2000:

Somerset, NJ	Feb. 29-Mar. 3	Mar. 28-Mar. 31, 2000
Chicago (Lisle, IL)	Mar. 14-Mar 17	Apr. 11-14, 2000
Somerset, NJ	Apr. 25-28	May 23-26, 2000
Boston (Ashland, MA)	May 9-12	June 6-June 9, 2000
Chicago (Lisle, IL)	Sept. 19-22	Oct. 17-20, 2000
Somerset, NJ	Oct. 3-Oct. 6	Oct 31-Nov. 3, 2000

Orange Co. (Dana Point, CA)	Oct. 31-Nov. 3	Nov. 28-Dec. 1, 2000
Boston (Ashland, MA)	Nov. 14-Nov. 17	Dec. 12-15, 2000

Many of the nation's leading corporations including AT&T, Johnson and Johnson, Loral Skynet, and Lucent Technologies have enrolled their employees in MBA PowerPak™. "The program prepares the manager for the innovative business environment and the challenges and technologies of the New Millennium," says Global Resources President Diane Landau. "Accelerating rates of technological change, new forms of competition, and complex social forces are just some of the business issues that Global Resources and the IEEE foresee in the landscape of business in the twenty-first century."

MBA PowerPak™'s content structure is modeled from the course curriculums of the top MBA programs in the U.S. All MBA PowerPak™ instructors have advanced degrees in addition to their minimum fifteen years of high-technology business and overseas field experience. In the classroom, the instructors blend traditional academic models with case studies and examples.

To register or obtain additional information regarding the course curriculum, training staff, scheduling, and pricing, managers are encouraged to visit the MBA PowerPak™ Website at <http://www.MBAPowerPak.com/> or call the MBA PowerPak™ Registration Center at 1-877-GRTRAIN (1-877-478-7246).

For more information about the IEEE and how to become a member, contact Lynn Murison at l.murison@ieee.org

IEEE NEWS

From the "IEEE Eye on Washington" - January 10, 2000 OUTLOOK MIXED FOR R&D IN PRESIDENT'S FY 2001 REQUEST

Although the details will not be made official until the budget is released in early February, it appears that President Clinton's FY 2001 budget request will contain both good news and bad news for science and technology. The good news is that the proposed budget will feature a major emphasis on S&T, with large increases requested for the National Science Foundation (possibly several hundred million dollars) and for the National Institutes of Health. The downside is that new funding is tied to proposed increases discretionary spending caps fixed by the 1997 balanced budget agreement. Despite burgeoning federal surpluses, Congress has steadfastly refused to raise these caps, preferring instead to fund discretionary program increases by pushing appropriations into future years. This in turn reduces the amount of discretionary funds available since this year's funds are required to pay out last year's obligations.

Also of concern is the Administration's apparent resolve to continue cutting funding for defense-related science and technology research. In comments to the National Research Council's Committee on Review of the Department of Defense Air and Space Systems Science and Technology Program on Dec. 16, a senior defense official cautioned that President Clinton's FY 2001 defense science and technology budget request would propose funding nearly \$1 billion below 2000 levels, including a 12 percent cut in funding for basic and applied research (6.1-6.3a technology base accounts). Congressional defense staffers also present at the meeting noted that defense R&D spending has already declined 14 percent over the past five years, due to budget constraints and the rising costs of peace-keeping operations and weapons procurement.

FTC TO FORM ADVISORY COMMITTEE ON ON-LINE ACCESS AND SECURITY

On Dec. 16th, the Federal Trade Commission voted to establish an Advisory Committee on Online Access and Security and charged it to provide advice and recommendations to the Commission on options for the implementation by commercial Web sites of access and security information practice principles, and the costs

and benefits of each option. A report with recommendations is requested by May 15. The Advisory Committee will be chaired by David Medine, associate director for financial practices in FTC's Consumer Protection office, and will consist of approximately 30 individuals representing a broad spectrum of business and consumer interests. Nominations for Advisory Committee members were solicited in a December 21 Federal Register notice and accepted through January 5.

See related press release at: <http://www.ftc.gov/opa/1999/9912/accesssectf.htm>

See Federal Register notice (PDF format) at <http://www.ftc.gov/acoas/64fr71457.pdf>

DoD SOLICITS DUAL USE TECHNOLOGY PROPOSALS

The Department of Defense will release an FY 2001 solicitation in mid-January (tent. January 18) soliciting industry proposals for R&D into dual use technologies (technology with both civilian and military applications). A total of \$60 million will be available in FY 2001 grants. April 28, 2000 is the proposal deadline. DoD will be hosting a Dual Use Science and Technology Investment Strategy Conference in New Orleans on February 3 to provide an opportunity for attendees to learn more about the DoD dual use technology program, how to do business with DoD using commercial approaches, and how to access DoD technologies for commercial applications. For more information on the conference and solicitation, consult the Dual Use S&T website: <http://www.dtic.mil/dust/>

COMPUTER SCIENCE AND ELECTRICAL ENGINEERING BUCKS GRADUATE ENROLLMENT TRENDS

According to a National Science Foundation Databrief released in mid-December, graduate-level enrollments in computer science at U.S. higher education institutions was up 5.1 percent in 1998, while graduate enrollment in electrical engineering rose 2.5 percent. These increases ran counter to the overall trend for engineering, which saw enrollments dip by 0.7 percent, with the biggest decreases in the civil and industrial engineering disciplines. See the NSF Databrief at: <http://www.nsf.gov/sbe/srs/databrf/db00307.htm>

WESTERN STATES CREATE HIGH TECH COUNCIL

The Governors of 18 Western states comprising the Western Governors' Association announced in December the creation of a regional High Tech Council "to serve as a strategic alliance among states, technology firms and universities to advance the region's common interests in the technology-driven and knowledge-based new economy." The Council is expected to include 15-20 high-level representatives from the IT, health and biotechnology industries such as Intel and Silicon Graphics, and leaders from academia and the public sector. See related press release: <http://www.westgov.org/wga/press/pr12-399.htm>

NATIONAL R&D PLAN FOR AVIATION SAFETY RELEASED

The White House has released a National Research and Development Plan for Aviation Safety, Security, Efficiency, and Environmental Compatibility, which was developed by the National Science and Technology Council's multi-agency Subcommittee on Transportation Research and Development. The plan defines broad agency goals and working relationships, and sets overall priorities for R&D funding. See the report on-line at <http://www.volpe.dot.gov/resref/strtplns/nstc/aviatrd/index.html>

IEEE-USA DISCUSSION FORUM IS LIVE

Washington, D.C., January 13, 2000 -- IEEE-USA has launched a new website feature, the IEEE-USA Discussion Forum <http://www.ieeeusa.org/boards>. The Discussion Forum provides you with a way to let us know what's on your mind and to participate directly in our programs and activities. Current forums focus on IEEE-USA grassroots efforts and professional activities. New forums will be added as new interest networks and audiences are identified. Registered users can post messages and reply to the messages posted by others, so sign-up today and start posting!

The IEEE Cincinnati Section Executive Committee
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FEBRUARY 2000
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